



Paper-and-pencil assessments will contain multiple choice, multiple select, and constructed response items. Online assessments will also contain technology-enhanced items.

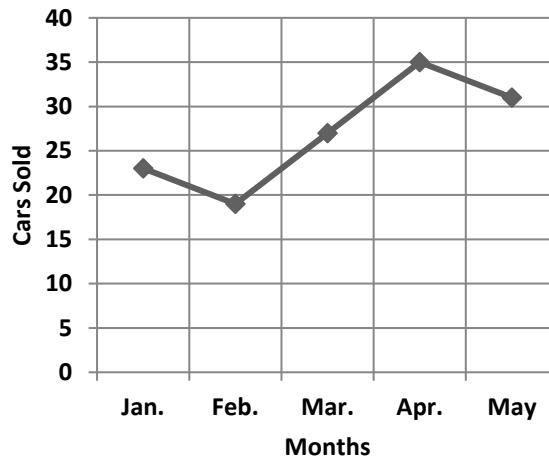
Multiple Choice

1. Johanna graphs four functions in her math notebook. Which function is linear?

A $3x^2 + 4y = 5$
B $x + 3y = 2$
C $2^x - y = 8$
D $5 - \frac{3}{x} = 2y$

2. Dale is trying to figure out how fast his sales are growing. He charts the monthly sales at his car dealership.

Dale's Used Cars



What is the *approximate* average increase in sales per month from January to May?

- A 2 cars per month
- B 4 cars per month
- C 8 cars per month
- D 16 cars per month

Multiple Select

3. Andrew periodically tracks the account balance of his investment account.

Year	Account Balance
2	\$4,127.89
4	\$4,868.41
5	\$5,287.10

The balance of the account can be predicted by the equation $y = 3,500(1.086)^n$, where y represents the amount in the account, and n is the number of years since Andrew opened the account.

Which two statements are true?

- A Andrew opened the account with \$3,500.
- B Andrew opened the account with \$4,127.89.
- C The account grows about 8.6% each year.
- D The account loses about 8.6% each year.
- E The account earns \$384.40 each year.

Constructed Response

Constructed response items for math will be scored by teachers in each school/district using rubrics and/or scoring guides provided.

4. Coach Hopkins purchased a new machine to launch softballs up in the air to practice catching pop-flies. A softball is launched at an initial upward velocity of 64 feet per second from the new machine on the ground. The function $h(t) = -16t^2 + 64t$ models the height of the ball after t seconds from launch.

Part A

How long will it take for the ball to reach its *maximum* height, in seconds? What will the *maximum* height of the ball be at this time?

Part B

Suppose the softball player misses the catch. *Approximately* how many seconds will it take for the ball to hit the ground? In 2-3 sentences, explain how to find the answer.